

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference DNDRO107	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2005/000587	International filing date (<i>day/month/year</i>) 21 January 2005 (21.01.2005)	Priority date (<i>day/month/year</i>) 21 January 2004 (21.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant DENDRON GMBH		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 7 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44 <i>bis</i> .3(c) and 93 <i>bis</i> .1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44 <i>bis</i> .2).																								

	Date of issuance of this report 03 October 2006 (03.10.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yolaine Cussac
Facsimile No. +41 22 338 82 70	e-mail: pt11@wipo.int

PATENT COOPERATION TREATY

TRANSLATION

PCT

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:		Date of mailing (day/month/year)	See form PCT/ISA/210
Applicant's or agent's file reference DNDR0107		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/EP2005/000587	International filing date (day/month/year) 21.01.2005	Priority date (day/month/year) 21.01.2004	
International Patent Classification (IPC) or both national classification and IPC A61B17/12			
Applicant DENDRON GMBH			

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2005/000587

Box No. I **Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2005/000587

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3-9, 11-16, 18, 20	YES
	Claims	1, 2, 10, 17, 19, 21-24	NO
Inventive step (IS)	Claims		YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
	Claims		NO

2. Citations and explanations:

1. Reference is made to the following documents:

D1: US 6,468,266

D2: DE 101 18 017

2. INDEPENDENT CLAIM 1

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2). Document D1 discloses (the references between parentheses relate to said document): Device for implanting occlusion coils (120), which can be released by electrolysis, in blood vessels and body cavities, especially aneurysms, with an insertion aid (110), at least one occlusion coil (3) that is arranged distally in relation to the insertion aid (110), and at least one electrolytically corrodable release element (2), at least one stabilizing coil (123) being arranged between release element (112) and occlusion coil (120), the stabilizing coil (123) being connected to the occlusion coil (120) via an electrically insulating adhesion layer (121) so that,

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

when an electrical voltage is applied to the release element (112), the occlusion coil (120) is isolated from the voltage (see D1, figures 6-8).

Consequently, patent claim 1 does not appear to meet the requirements of PCT Article 33(2).

3. INDEPENDENT CLAIM 24

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 24 is not novel within the meaning of PCT Article 33(2). Document D1 discloses (the references between parentheses relate to said document): Medical implant consisting of at least one occlusion coil (3) and at least one release element (2), and at least one stabilizing coil (123), the stabilizing coil (123) being arranged between release element (112) and occlusion coil (120), and the stabilizing coil (123) being connected to the occlusion coil (120) via an electrically insulating adhesion layer (121) (see D1, figures 6-8). Consequently, patent claim 24 does not appear to meet the requirements of PCT Article 33(2).

4. DEPENDENT CLAIMS 2, 10, 17, 19, 21-23

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claims 2, 10, 17, 19 and 21-23 is not novel within the meaning of PCT Article 33(2).

Document D1 discloses a stabilizing coil (5) with an

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
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electrically insulating cover (claims 2 and 10; see figure 8), an electrically insulating cover made of an acrylate adhesive (claim 17; see column 5, line 39), a release element made of a steel alloy (claim 19; see figure 8), an occlusion coil made of platinum or of a platinum alloy (claim 21; see column 10, lines 32-33), an insertion aid on the guide wire (claim 22) in combination with a microcatheter (claim 23).

Consequently, patent claims 2, 10, 17, 19 and 21-23 do not appear to meet the requirements of PCT Article 33(2)).

5. DEPENDENT CLAIMS 3-9, 18, 20

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claims 3-9, 18, 20 does not involve an inventive step within the meaning of PCT Article 33(3).

Document D1 is considered the closest prior art for the subject matter of claim 3. It discloses (the references between parentheses relate to said document): Device for implanting occlusion coils (120) which can be released by electrolysis.

Therefore, the subject matter of claim 3 differs from the known occlusion coil (120) in that a securing means (6) extends through the lumen of the occlusion coil.

The problem addressed by the present invention can therefore be considered to be that parts of the occlusion

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
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coil can be drawn apart from one another by tensile loading or torsion.

For the following reasons, the solution proposed in claim 3 of the present application cannot be considered inventive (PCT Article 33(3)):

Concerning the feature of the "securing means", document D2 describes the same advantages as the present application (see D2, § 47). A person skilled in the art would therefore consider the inclusion of this feature in the device described in document D1 to be a routine measure for solving the problem of interest.

The same argument applies *mutatis mutandis* to dependent claims 4-9, 18, 20.

Consequently, the subject matter of claims 3-9, 18, 20 does not involve an inventive step (PCT Article 33(3)).

6. Industrial applicability

The industrial applicability of claims 1-24 is obvious. The requirements of PCT Article 33(4) are therefore satisfied.

PATENT COOPERATION TREATY

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(PCT Rule 43bis.1)

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Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference

DNDR0107

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2005/000587

International filing date (day/month/year)

21.01.2005

Priority date (day/month/year)

21.01.2004

International Patent Classification (IPC) or both national classification and IPC

A61B17/12

Applicant

DENDRON GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
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☐ table(s) related to the sequence listing

b. format of material

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1. Statement

Novelty (N)	Claims	3-9, 11-16, 18, 20	YES
	Claims	1, 2, 10, 17, 19, 21-24	NO
Inventive step (IS)	Claims		YES
	Claims	1-24	NO
Industrial applicability (IA)	Claims	1-24	YES
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when an electrical voltage is applied to the release element (112), the occlusion coil (120) is isolated from the voltage (see D1, figures 6-8).

Consequently, patent claim 1 does not appear to meet the requirements of PCT Article 33(2).

3. INDEPENDENT CLAIM 24

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 24 is not novel within the meaning of PCT Article 33(2).

Document D1 discloses (the references between parentheses relate to said document): Medical implant consisting of at least one occlusion coil (3) and at least one release element (2), and at least one stabilizing coil (123), the stabilizing coil (123) being arranged between release element (112) and occlusion coil (120), and the stabilizing coil (123) being connected to the occlusion coil (120) via an electrically insulating adhesion layer (121) (see D1, figures 6-8). Consequently, patent claim 24 does not appear to meet the requirements of PCT Article 33(2).

4. DEPENDENT CLAIMS 2, 10, 17, 19, 21-23

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claims 2, 10, 17, 19 and 21-23 is not novel within the meaning of PCT Article 33(2).

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Consequently, patent claims 2, 10, 17, 19 and 21-23 do not appear to meet the requirements of PCT Article 33(2)).

5. DEPENDENT CLAIMS 3-9, 18, 20

The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claims 3-9, 18, 20 does not involve an inventive step within the meaning of PCT Article 33(3).

Document D1 is considered the closest prior art for the subject matter of claim 3. It discloses (the references between parentheses relate to said document): Device for implanting occlusion coils (120) which can be released by electrolysis.

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